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EXAMINER
WANG, JIN CHENG

ART UNIT	PAPER NUMBER
2672	16

DATE MAILED: 04/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/864,107	Applicant(s) VAN LIERE, FILIPS	
	Examiner Jin-Cheng Wang	Art Unit 2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 March 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

The amendment filed on 03/05/2004 has been entered. Claims 1,10-19 have been amended. Claims 20-22 have been newly added. Claims 1-22 are pending in the application.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1 and 10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The claim limitation of "enabling the generation of the measurement graphics without activation of user interface constructs" as set forth in the Claims 1 and 10 is not enabled by the specification. For example, on page 3 of the specification, it is stated "A person may manipulate the image in various manners described hereinafter through mouse and/or keyboard actuations. Various other system configurations would be obvious to a person skilled in the art of image manipulating systems. The invention uses simple mouse control: operation is foremostly controlled by a pointing device and a single button, sometimes enhanced by accelerators and/or modifiers." *In contrary to what has been claimed in the independent Claims 1 and 10*, the

specification describes the generation of the measurement graphics with activation of **user interface constructs such as a pointing device and a button on a keyboard**.

3. Claims 2-9 and 19-22 are rejected due to their dependency on the Claim 1. Claims 11-18 are rejected due to their dependency on the Claim 10.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "user interface constructs" as recited in the Claims 1 and 10 is ambiguous because Applicant fails to particularly point out what is the "user interface constructs".

6. Claims 2-9 and 19-22 are rejected due to their dependency on the Claim 1. Claims 11-18 are rejected due to their dependency on the Claim 10.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claim 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Echerer et al. U.S. Pat. No. 5,740,267 (hereinafter Echerer) in view of Cable U.S. Pat. No. 6,614,452 (hereinafter Cable).

9. Claim 1:

(a) Echerer teaches a method for providing and processing a cursored user interaction (column 8, lines 37-67, column 9, lines 1-23) with a spatially displayed medical image (column 7, lines 21-29) and producing graphics related data on said medical image (column 12, lines 42-56), wherein said method comprises the steps of:

Controlling a mouse computer interface device, having at least one button (e.g., column 12, lines 20-30; column 13, lines 25-50);

Displaying a pointer symbol on said graphical interface, wherein said pointer symbol (e.g., a cursor) represents a current position of said mouse on said graphical interface (e.g., column 8, lines 35-55; column 12, lines 20-30; column 13, lines 25-50);

Tracking a status of each of said at least one button (e.g., column 12, lines 20-30; column 13, lines 25-50);

Detecting a position of said mouse, wherein said position detection step is activated upon actuation of one of said at least one button (e.g., column 12, lines 20-30; column 13, lines 25-50; column 15, lines 15-35); and

Enabling the generation of the measurement graphics without activation of user interface constructs such as some particular buttons on the keyboard (herein only mouse is being used instead of the user interface constructs such as some buttons on the keyboard; see e.g., column 12, lines 20-30; column 13, lines 25-50; column 15, lines 15-35).

(b) However Echerer is silent to providing a menu-less graphical interface for displaying, essentially unobstructed, said medical image in a substantial portion of said menu-less graphical interface and generating a measurement graphic related to a predefined set of measurement operations on said medical image upon at least one actuation of said at least one button.

(c) Cable teaches the claim limitation of providing a menu-less graphical interface for displaying, essentially unobstructed, said medical image in a substantial portion of said menu-less graphical interface (e.g., column 8, lines 5-50) and generating a measurement graphic related to a predefined set of measurement operations on said medical image upon at least one actuation of said at least one button (e.g., figure 3A; column 8, lines 5-67).

(d) It would have been obvious to one of ordinary skill in the art to have incorporated the Cable's drawing options into Echerer's method of processing cursored user interaction because Echerer implicitly suggests providing a menu-less graphical interface for display said medical image (e.g., column 12, lines 20-30; column 13, lines 25-50) and providing a predefined interaction with said medical image, wherein said interaction is selected from a group of predefined interactions based on said status of each of said at least one button during the interval between multiple said position detection steps (e.g., column 16, lines 15-67; column 17, lines 1-67; column 18, lines 1-64) therefore suggesting an obvious modification of the Echerer's method for processing a radiograph. Moreover, Cable teaches a variety of drawing options and GUI controls including the free-hand drawing option and pop-up menu designation (Cable column 8, lines 5-67).

(e) One having the ordinary skill in the art would have been motivated to do this because it would have provided an alternative drawing option such as the free-hand drawing option that does not rely on the menus for GUI control (Cable column 8, lines 5-67).

Claim 2:

The claim 2 encompasses the same scope of invention as that of claim 1 except additional claimed limitation that a single-point actuating/positioning assigns an actual pixel position and/or a pixel intensity quantity to the point in question. However, Echerer/Cable further discloses the claimed limitation that a single-point actuating/positioning assigns an actual pixel position and/or a pixel intensity quantity to the point in question (e.g., Echerer column 12, lines 42-56; Cable column 12, lines 35-50).

Claim 3:

The claim 3 encompasses the same scope of invention as that of claim 1 except additional claimed limitation that a point pair actuating/positioning assigns a distance value to the pair in question. However, Echerer further discloses the claimed limitation that a point pair actuating/positioning assigns a distance value to the pair in question (e.g., column 13, lines 12-49, column 15, lines 9-11).

Claim 4:

The claim 4 encompasses the same scope of invention as that of claim 1 except additional claimed limitation that a triple-point actuating/positioning assigns an angle value quantity to a middle point of the triple. However, Echerer further discloses the claimed limitation that a triple-

point actuating/positioning assigns an angle value quantity to a middle point of the triple (column 15, lines 12-19).

10. Claim 5:

The claim 5 encompasses the same scope of invention as that of claim 1 except additional claimed limitation that "multiple-point actuating/positioning for an open or closed point sequence assigns an area value quantity to a concave region delimited by the sequence in question". However, Cable further discloses the claim limitation of multiple-point actuating/positioning for an open or closed point sequence assigns an area value quantity to a concave region delimited by the sequence in question (Cable column 8, lines 5-67).

11. Claim 6:

The claim 6 encompasses the same scope of invention as that of claim 1 except additional claimed limitation that "a freehand-drawn actuating/positioning for an open or closed point sequence assigns an area value quantity to a concave region delimited by the sequence in question". However, Cable further discloses the claim limitation of a freehand-drawn actuating/positioning for an open or closed point sequence assigns an area value quantity to a concave region delimited by the sequence in question (Cable column 8, lines 5-67).

12. Claim 7:

The claim 7 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of "a multiple-point actuating/positioning for an open or closed point sequence assigns a poly-line measurement quantity to the sequence so drawn". However, Cable further discloses the claim limitation of a multiple-point actuating/positioning for an open or

closed point sequence assigns a poly-line measurement quantity to the sequence so drawn (Cable column 8, lines 5-67).

13. Claim 8:

The claim 8 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of "for an open or closed point sequence assigns a poly-line measurement quantity to the sequence so drawn". However, Cable further discloses the claim limitation of a freehand-drawn actuating/positioning for an open or closed point sequence assigns a poly-line measurement quantity to the sequence so drawn (Cable column 8, lines 5-67).

14. Claim 9:

The claim 9 encompasses the same scope of invention as that of any of Claims 2 to 8 except additional claimed limitation of assigning a pixel staticizing to an assigned geometrical entity. However, Echerer further discloses the claimed limitation of assigning a pixel staticizing to an assigned geometrical entity (column 9, lines 1-23, column 15, lines 9-11).

15. Claims 10-13:

The claim 10, 11, 12, 13 encompasses the same scope of invention as that of claim 1, 2, 3, 4 respectively except additional claimed limitation of "an apparatus". However, Echerer further discloses the claimed limitation of "an apparatus" (column 5, lines 12-37).

16. Claims 14-18:

The claim 14, 15, 16, 17, 18 encompasses the same scope of invention as that of claim 5, 6, 7, 8, 9 except additional claimed limitation of "an apparatus". However, Echerer further discloses the claimed limitation of "an apparatus" (column 5, lines 12-37).

Claim 19:

The claim 19 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of a machine-readable computer program. However, Echerer further discloses the claimed limitation of "a machine-readable computer program (column 9, lines 30-36, figures 6-9).

17. Claim 20:

The claim 20 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of the step of enabling the generation of the measurement graphic based solely on actuation of said at least one button of said mouse on said medical image.

However, Cable further discloses the claim limitation of the step of enabling the generation of the measurement graphic based solely on actuation of said at least one button of said mouse on said medical image (creating a region of interest by simply clicking on button 326 with a pointer on the medical image; see Cable column 7, lines 40-60).

18. Claim 21:

The claim 21 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of the step of enabling the generation of the measurement graphic without requiring a user to define a type of graphic being generated.

However, Cable further discloses the claim limitation of the step of enabling the generation of the measurement graphic without requiring a user to define a type of graphic being

generated (creating a region of interest by simply clicking on button 326 with a pointer on the medical image without requiring a user to define a type of graphic being generated; see Cable column 7, lines 40-60).

19. Claim 22:

The claim 22 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of the measurement graphic being generated without movement of said mouse outside of said medical image.

However, Cable further discloses the claim limitation of the measurement graphic being generated without movement of said mouse outside of said medical image (creating a region of interest by simply clicking on button 326 with a pointer on the medical image without movement of the mouse outside of the medical image; see Cable column 7, lines 40-60).

Remarks

20. Applicant's arguments, filed 03/5/2004, paper number 15, have been fully considered but they are not deemed to be persuasive.

21. Applicant argues in essence with respect to the amended Claim 1 and similar claims that:

"Thus, in the invention, the generation of the measurement graphics is enabled 'without activation of user interface constructs' as now set forth in claim 1."

This is not found persuasive because the claim limitation of "enabling the generation of the measurement graphics without activation of user interface constructs" as set forth in the Claims 1 and 10 is not enabled by the specification. For example, on page 3 of the specification, it is stated "A person may manipulate the image in various manners described hereinafter through mouse

and/or keyboard actuations. Various other system configurations would be obvious to a person skilled in the art of image manipulating systems. The invention uses simple mouse control: operation is foremostly controlled by a pointing device and a single button, sometimes enhanced by accelerators and/or modifiers." *In contrary to what has been claimed in the independent Claims 1 and 10*, the specification describes the generation of the measurement graphics with activation of **user interface constructs such as a pointing device and a button on a keyboard**.

Moreover, some examples of user interface constructs are mouse, buttons on the mouse, keyboard, buttons on the keyboard, menus on a display, toolbars on a display, etc. However, the claim limitation recites enabling the generation of the measurement graphics without activation of user interface constructs such as a button on a mouse or a button on a keyboard. With regards to the newly added claim limitation set forth in the Claims 1 and 10, Echerer further teaches enabling the generation of the measurement graphics without activation of user interface constructs, i.e., with activation of buttons on the keyboard since Echerer teaches using a mouse only without activating buttons on the keyboard (See e.g., column 12, lines 20-30; column 13, lines 25-50; column 15, lines 15-35).

Finally, the claim limitation set forth in the Claim 1 recites "user interface constructs" which might just be equivalent to toolbars because (page 1 of) the specification describes without activation of user interface constructs such as menus or toolbars. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

22. Applicant argues in essence with respect to the amended Claim 1 and similar claims that:

"The prior art cited by the Examiner does not disclose, teach or suggest enabling the generation of graphics without activation of user interface constructs such as a toolbar."

In response, the claim limitation calls for "enabling the generation of the measurement graphics without activation of user interface constructs." However, Echerer further discloses enabling the generation of the measurement graphics without activation of user interface constructs, i.e., without activation of buttons on the keyboard since Echerer teaches using a mouse only without activating buttons on the keyboard (See e.g., column 12, lines 20-30; column 13, lines 25-50; column 15, lines 15-35).

23. Applicant argues in essence with respect to the amended Claim 1 and similar claims that:

"Echerer et al. and Cable therefore do not disclose, teach or suggest generating measurement graphics on a medical image displayed on a menu-less graphical interface based on actuation of a mouse button without activating a user interface construct or other input device to select the type of measurement graphic to be generated."

In response, the claim limitation calls for "enabling the generation of the measurement graphics without activation of user interface constructs." However, Echerer further discloses enabling the generation of the measurement graphics based on actuation of a mouse button without activation of user interface constructs, i.e., without activation of buttons on the keyboard since Echerer teaches using a mouse only without activating buttons on the keyboard (See e.g., column 12, lines 20-30; column 13, lines 25-50; column 15, lines 15-35).

Therefore, Echerer/Cable fulfills the amended Claim 1 as currently drafted.

Conclusion

24. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jin-Cheng Wang whose telephone number is (703) 605-1213. The examiner can normally be reached on 8:00 - 6:30 (Mon-Thu).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Razavi can be reached on (703) 305-4713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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